

AMENDMENT TO THE CLAIMS

A complete listing of the claims follows.

Listing of Claims

1. (Currently amended) A method for automatically weaning a patient from a ventilator, the method comprising the steps of:

(a) ~~providing pressure support to a patient;~~

(b) ~~detecting a spontaneous patient breath;~~

(a) ~~[(c)]~~ measuring the patient's spontaneous breathing rate;

(b) ~~[(d)]~~ measuring the patient's minute volume;

(c) ~~[(e)]~~ comparing the patient's spontaneous breathing rate to a predetermined range of breathing rates;

(d) ~~[(f)]~~ comparing the patient's minute volume to a predetermined tidal volume;
and

(e) weaning the patient from the ventilator in response to the comparisons in steps (c) and (d).

~~(g) adjusting the patient's support level according to the patient's spontaneous breathing rate compared to the predetermined range of breathing rates, and the patient's minute volume compared to the predetermined minute volume.~~

2. (Currently amended) The method for automatically weaning a patient from the ventilator of claim 1, the method further comprising the step of:

(f) ~~[(h)]~~ decreasing the patient's pressure support level if:

(i) ~~the patient's spontaneous breathing rate falls within the predetermined range of breathing rates, and,~~

(ii) the patient's minute volume exceeds the predetermined minute volume.

3. (Currently amended) The method for automatically weaning a patient from the ventilator of claim 1, the method further comprising the step of:

(f) ~~[(h)]~~ increasing the patient's support level if:

(i) the patient's spontaneous breathing rate falls outside the predetermined range of breathing rate; and

(ii) the patient's minute volume is exceeded by the predetermined minute volume.

4. (Previously presented) The method of claim 1 further comprising adjusting the amount of pressure support between zero and PEEP.

5. (Previously presented) The method of claim 1 wherein the patient's pressure support level is decreased by a rate between 0.01% and 0.1%.

6. (Previously presented) The method of claim 1 further comprising setting a low pressure alarm limit.

7. (Previously presented) The method of claim 1 wherein measuring the patient's spontaneous breath rate further comprises calculating an average breath rate and a current breath rate from patient's spontaneous breath rate to obtain the patient's breath rate.

8. (Currently amended) A ventilator system for automatically weaning a patient from a ventilator, comprising:

~~a source of pressure in communication with the patient to provide pressure support to the patient;~~

a spontaneous breathing rate monitor;

~~an input device for receiving input values for a predetermined breath rate range and a predetermined minute tidal volume;~~

a minute volume flow meter; and

a data processing unit in electrical communication with ~~[[said pressure source,]]~~ said breathing rate monitor, ~~and~~ said flow meter, ~~and~~ ~~said input device~~, wherein, said data processing unit ~~processes data from said breath rate monitor and said minute flow monitor, calculates an average breath rate and a current breath rate from a signal from said breathing rate monitor to obtain the patient's breath rate, compares the patient's breath rate to the predetermined breath rate range, compares the patient's minute tidal volume to the predetermined minute tidal volume, and adjusts the pressure source to change pressure support in response thereto~~ assesses the ventilation requirements of the patient from said processed data, and weans the patient from the ventilator according to the assessed ventilation requirements.

9. (Previously presented) The ventilator system of claim 8 wherein said source of pressure comprises a pneumatic system comprising a flexible airway, a source of pressurized gas, a rigid chamber, a flexible chamber and a Venturi valve.

10. (Previously presented) The ventilator system of claim 9 further comprising a high speed pneumatically driven, electronically controlled proportional valve and dual Venturi systems.

11. (Currently amended) The ventilator system of claim 8 wherein said input device ~~[[is]]~~ comprises a touch screen in electrical communication with a display controller processor.

12. (Currently amended) The ventilator system of claim 8 wherein said data processing unit ~~[[is]]~~ comprises a real time data processor in electrical communication with a ventilatory unit processor and an airway processor.

13. (Currently amended) A method for automatically weaning a patient from a ventilator, the method comprising the steps of:

~~providing pressure support to the patient;~~

(a) determining the patient's spontaneous breathing rate;

~~inputting values for a predetermined patient breath rate range and a predetermined minute volume;~~

(b) measuring the patient minute volume;

(c) comparing the patient's breath rate to the predetermined breath rate range;

(d) comparing the patient's minute volume to the predetermined minute volume;

[[and]]

(e) assessing from steps (a)-(d) the ventilation requirements of the patient; and

~~adjusting pressure support in response thereto.~~

(f) weaning the patient from the ventilator according to the assessed ventilation requirements.

14. (Previously presented) The method of claim 10 further comprising calculating an average breath rate and a current breath rate to obtain the patient's breath rate.